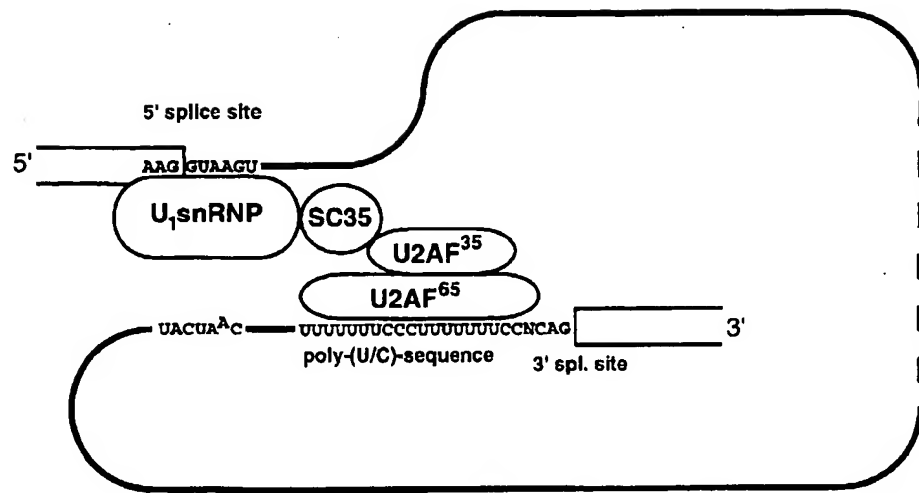


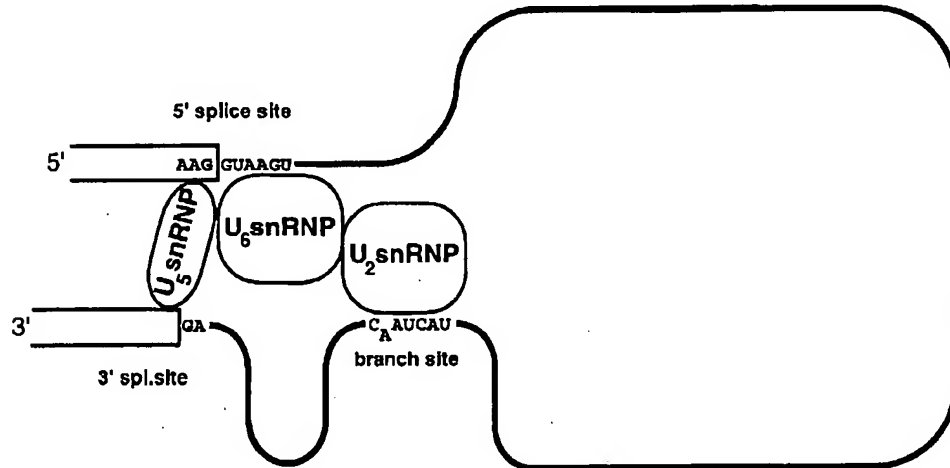
A

(1)

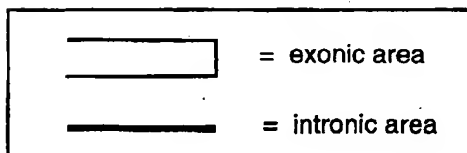


association between the 5' splice site and the 3' splice site in the E-complex

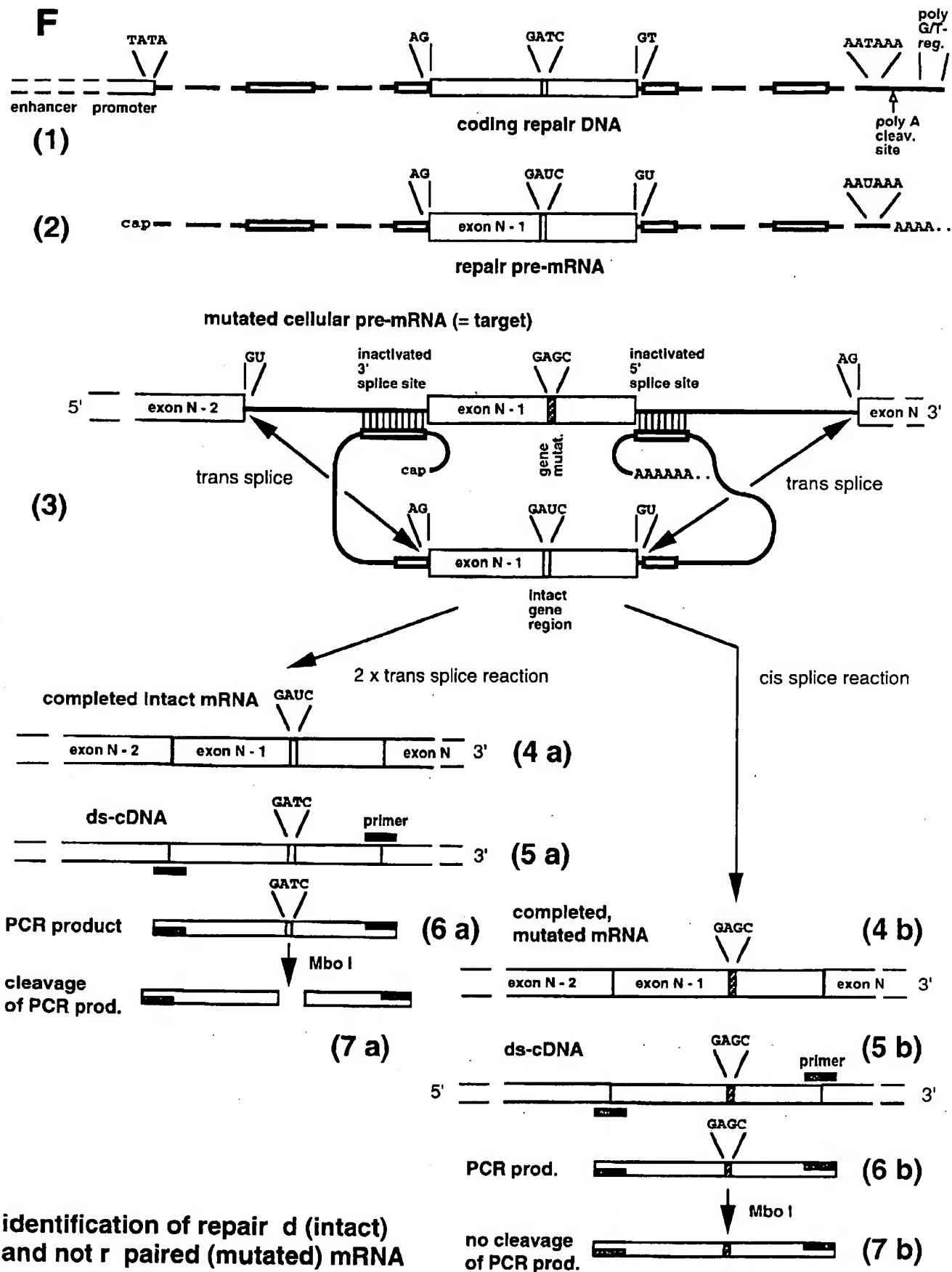
(2)

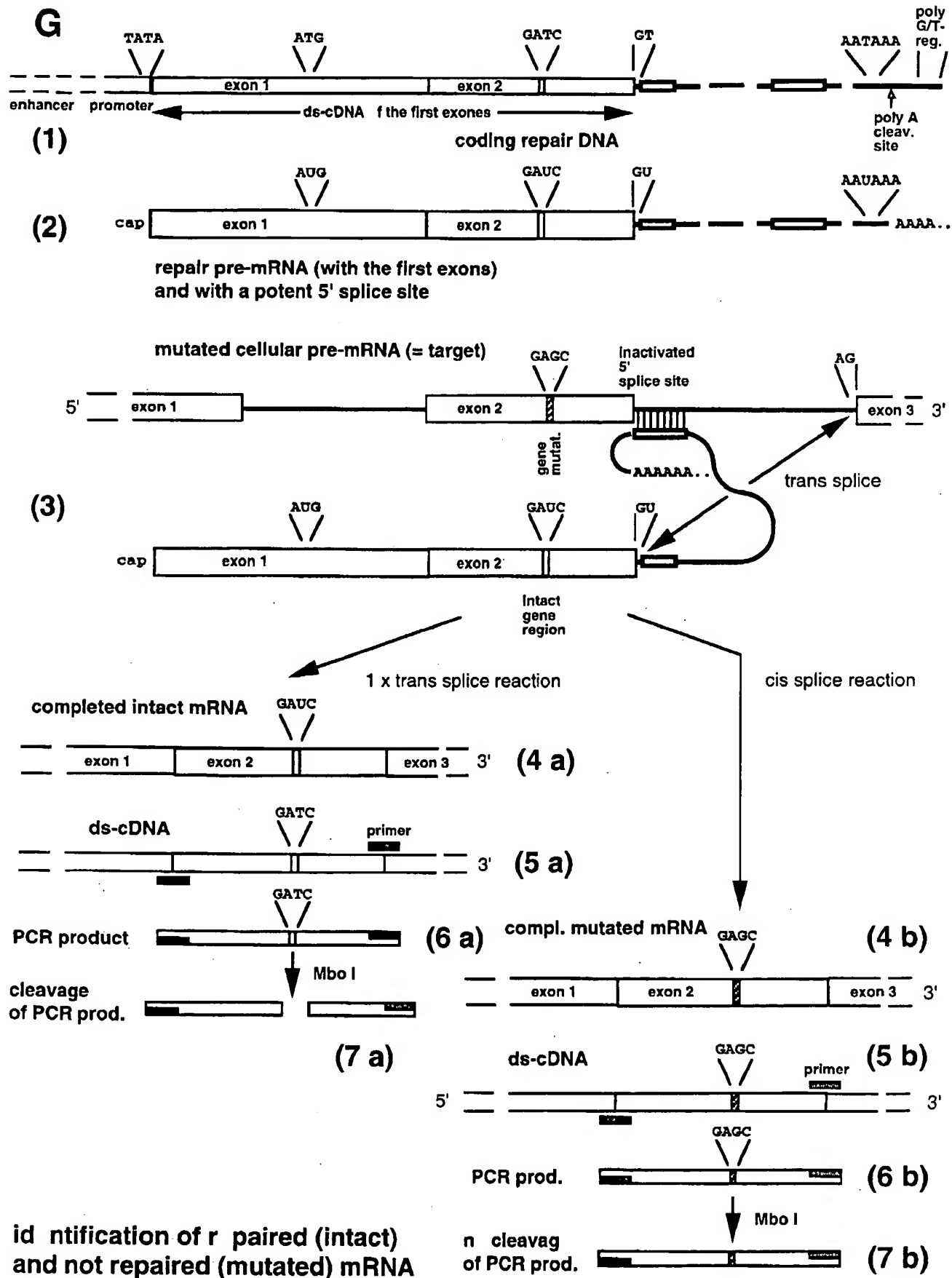


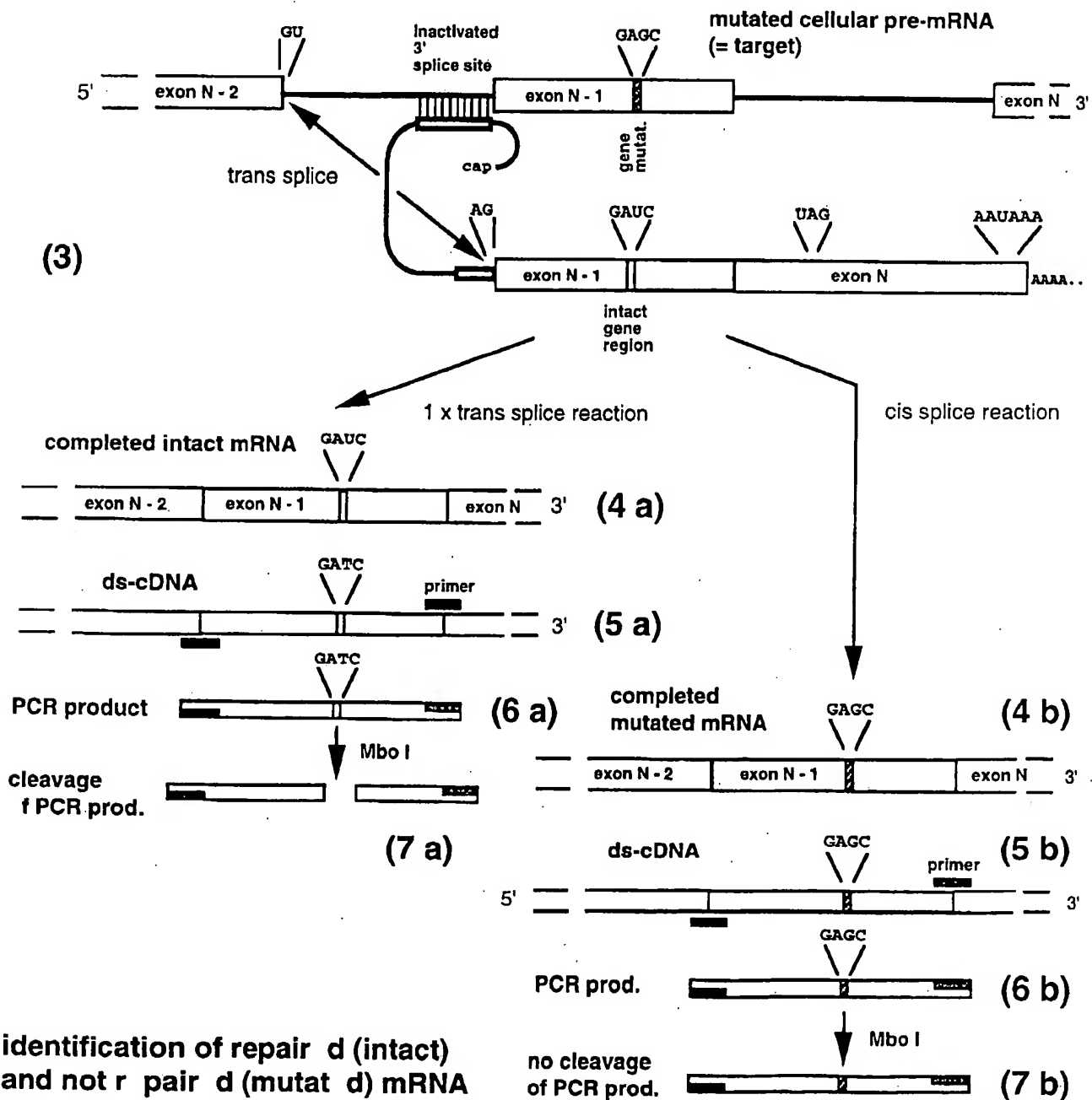
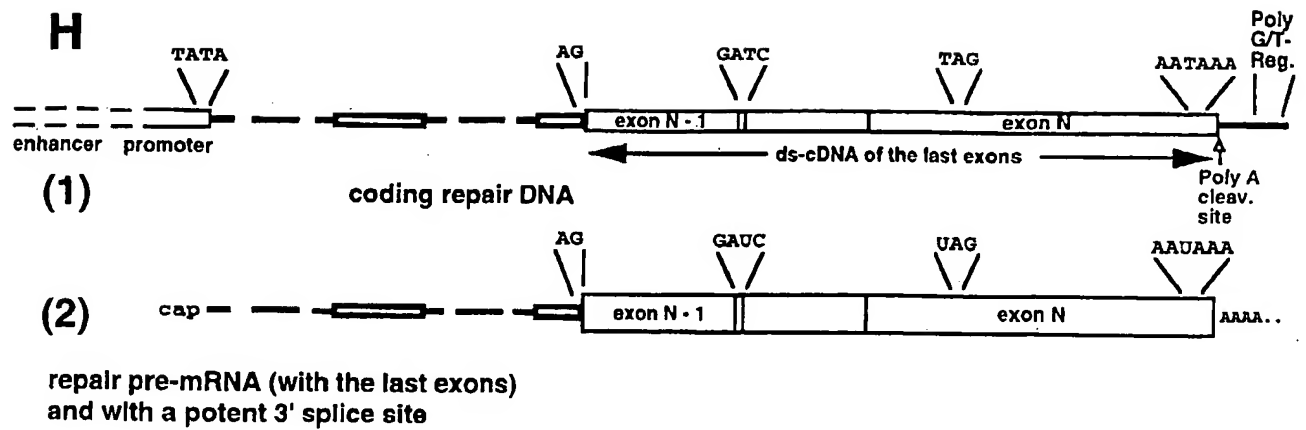
association between the 5' splice site and the 3' splice site in the B/C-complex

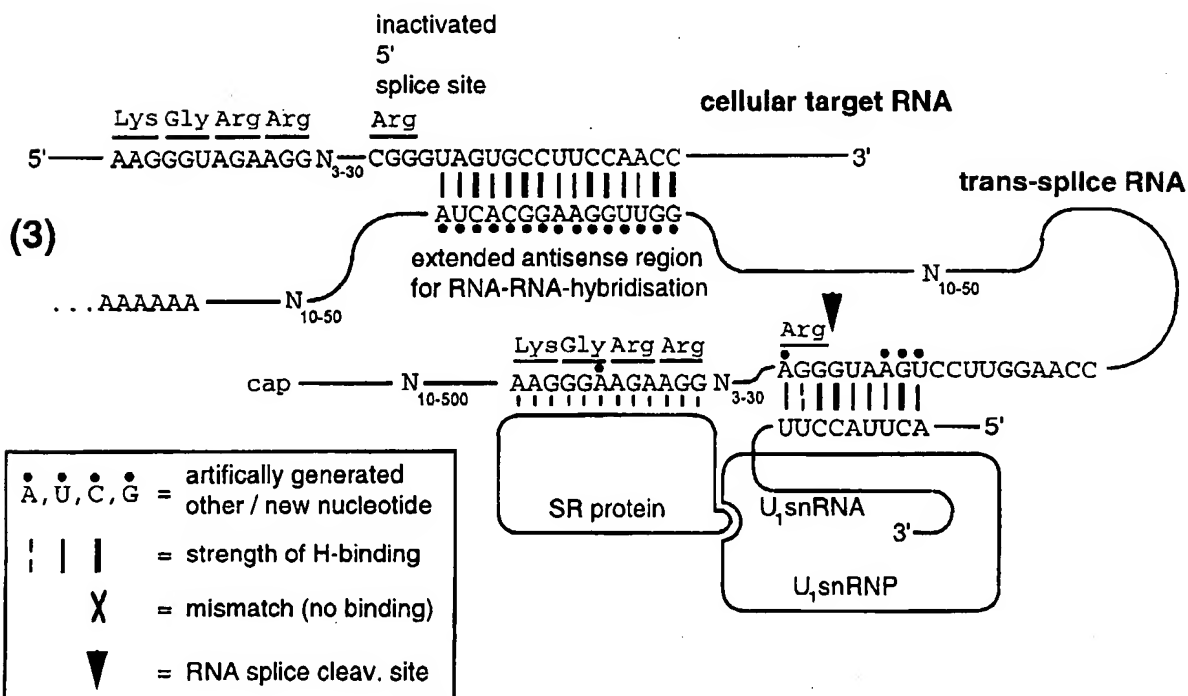
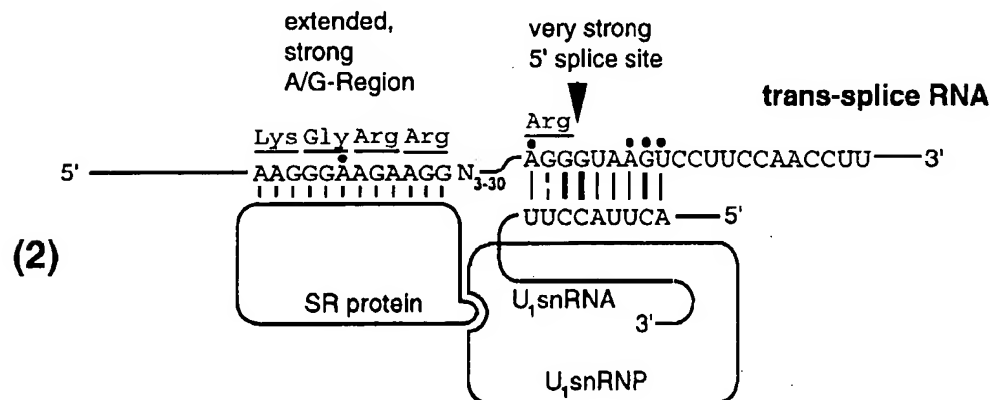
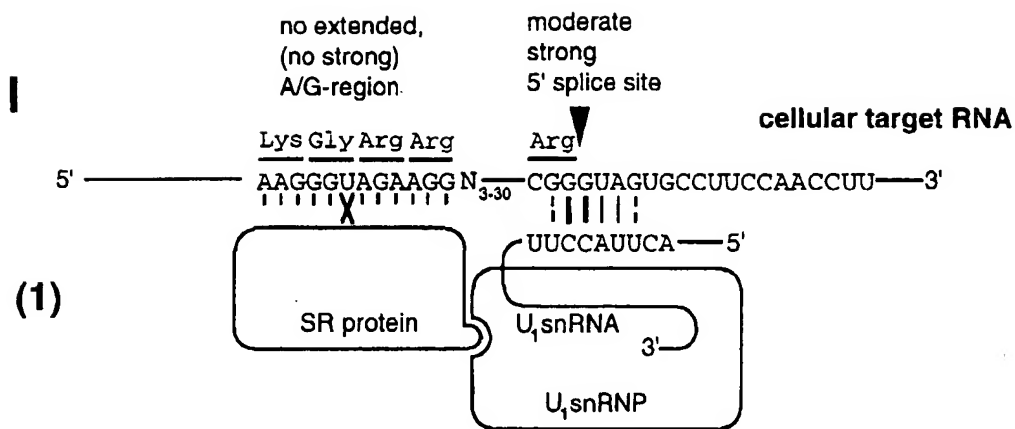


association between the 5' and 3' splice site at different points during splicing



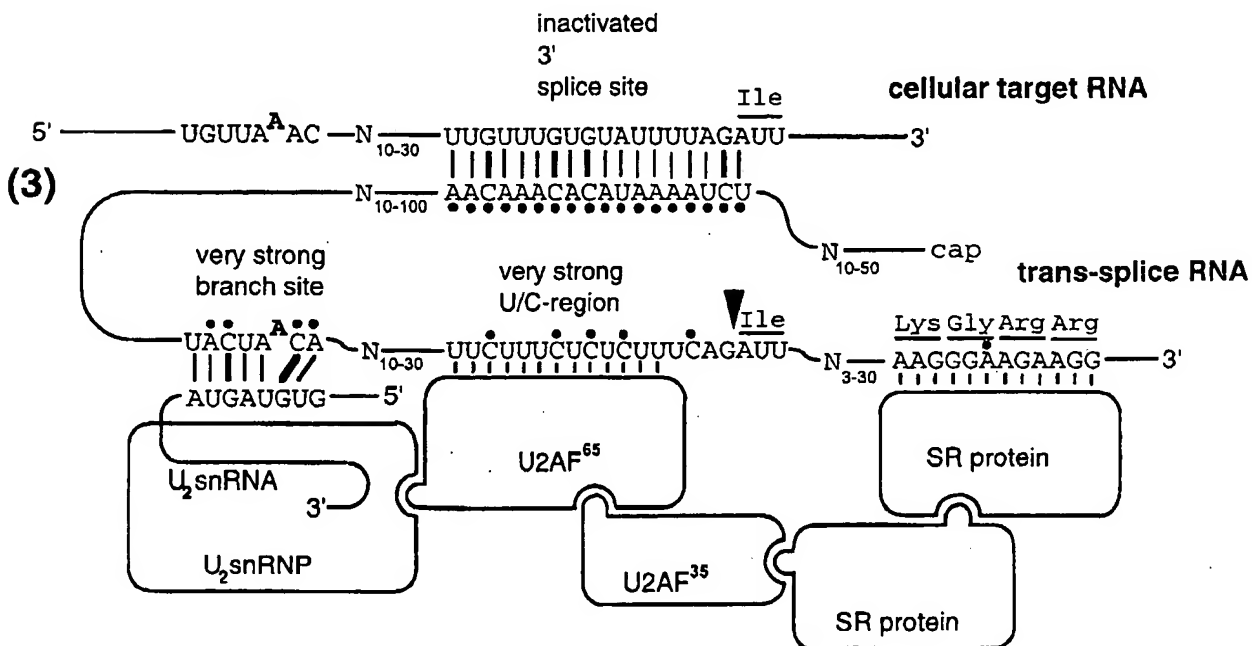
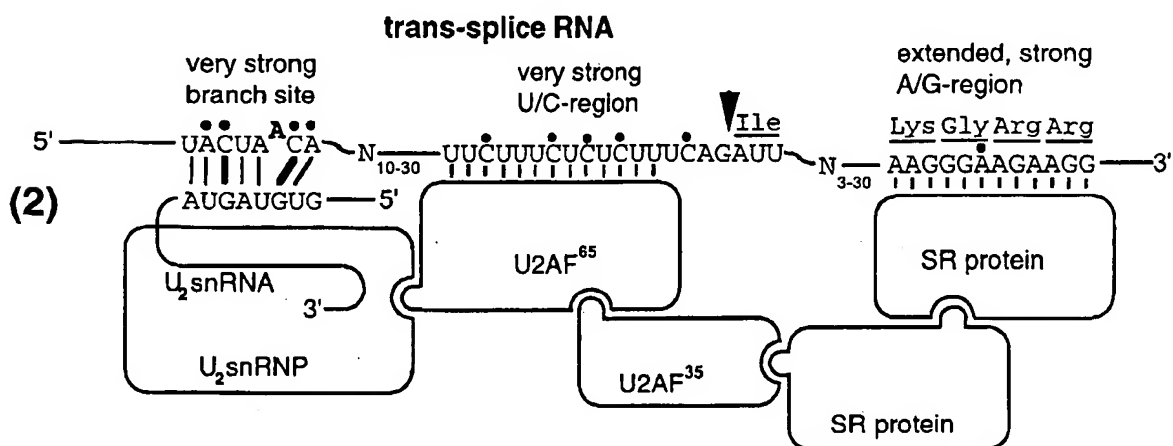
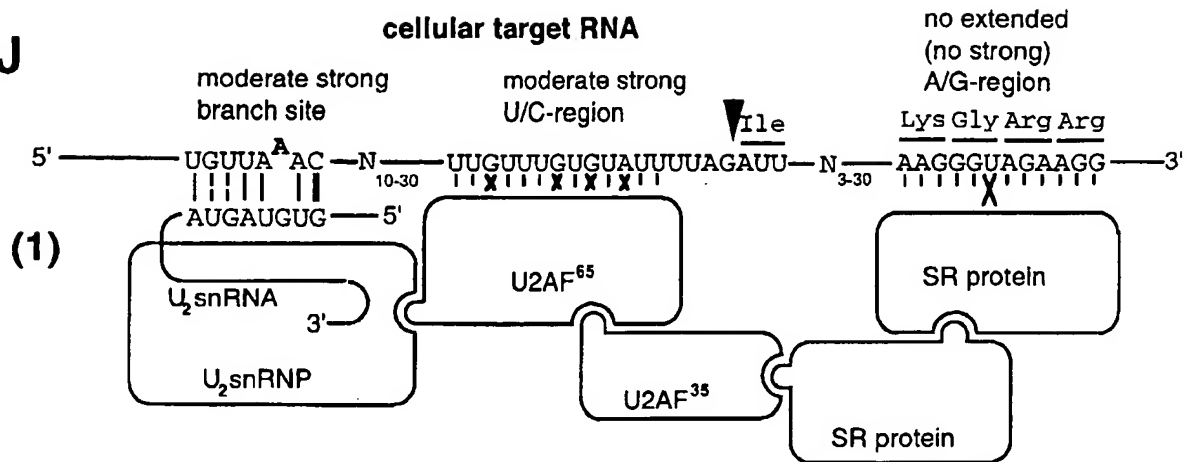




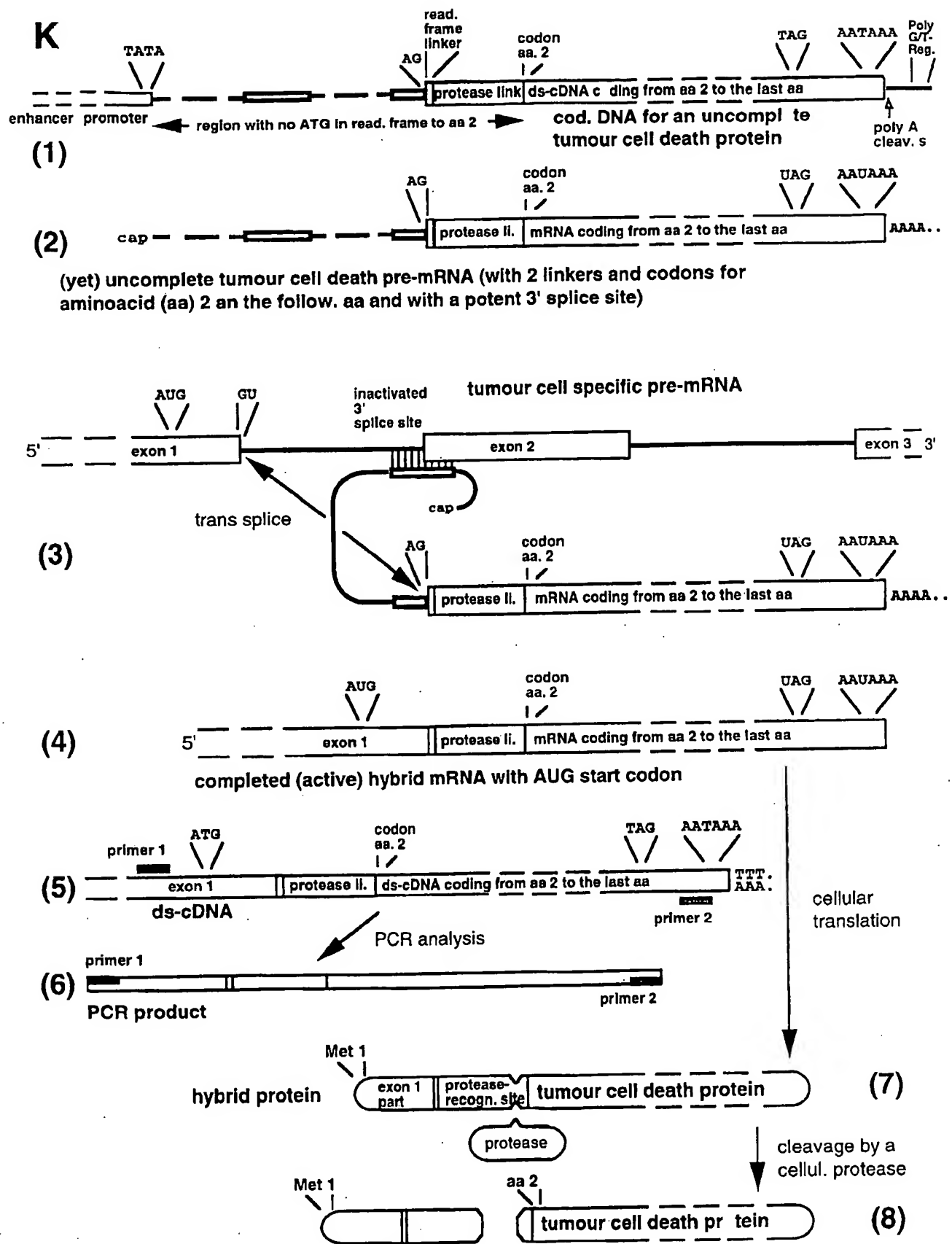


methodes to pr f r the us of a 5' splice site on a trans-splice RNA

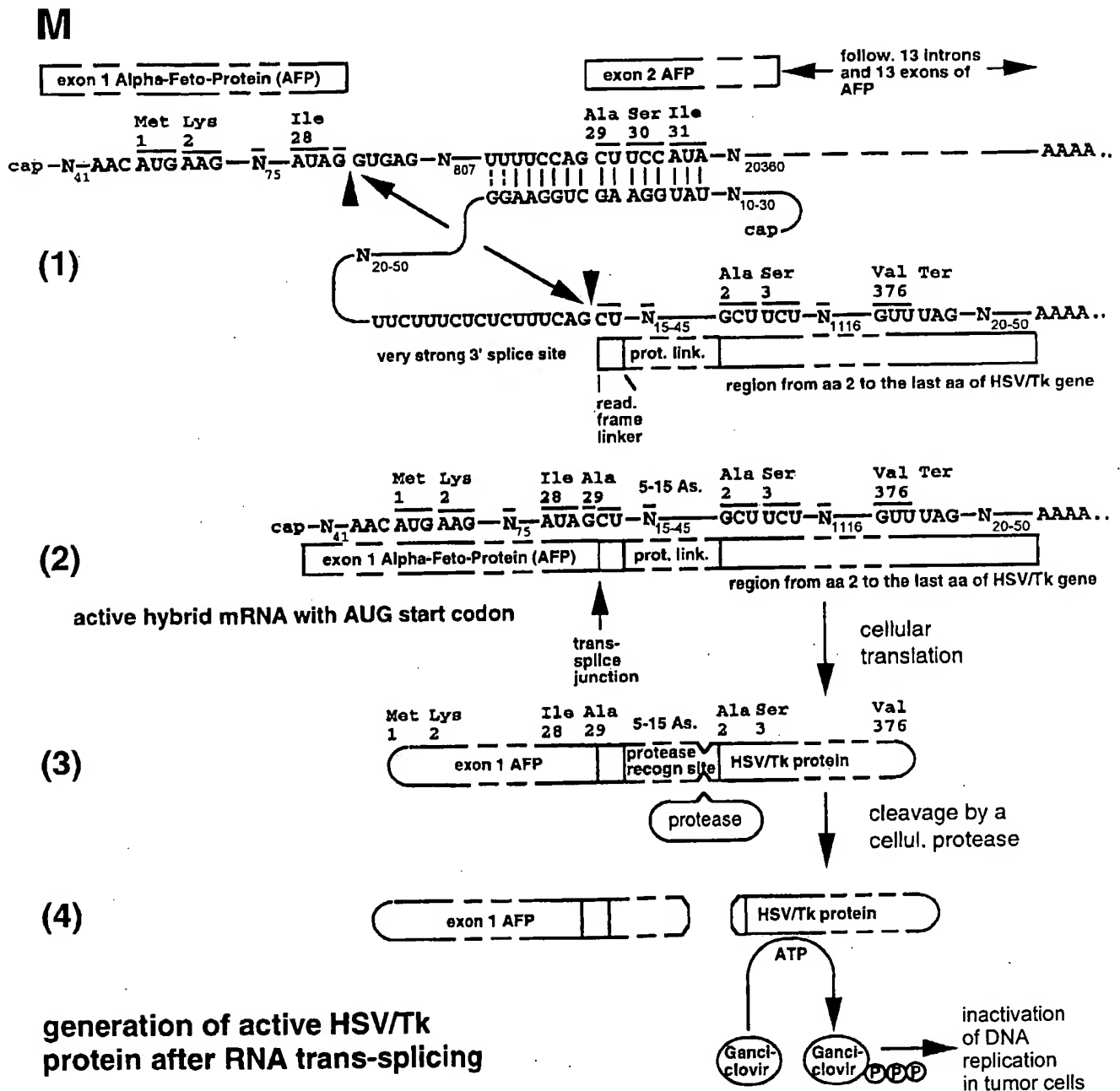
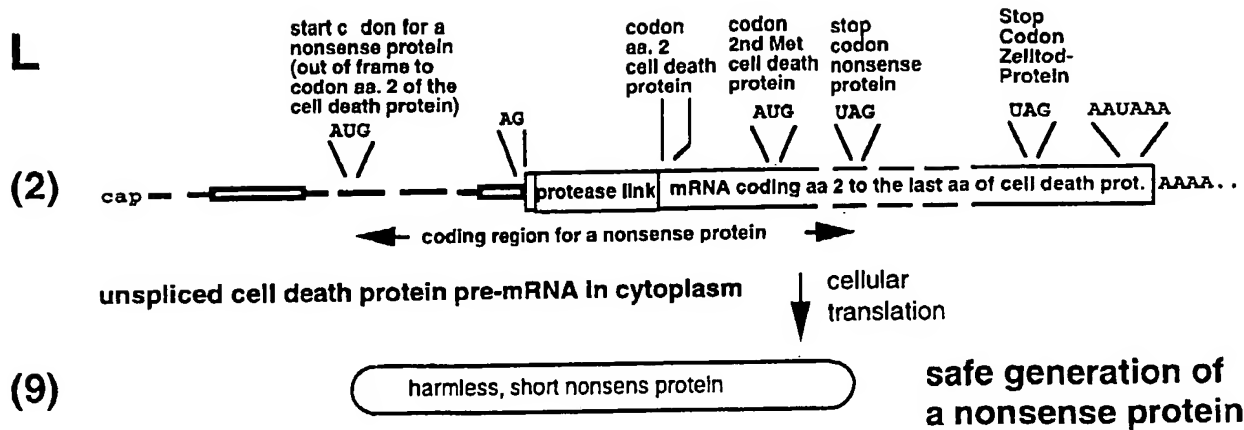
J



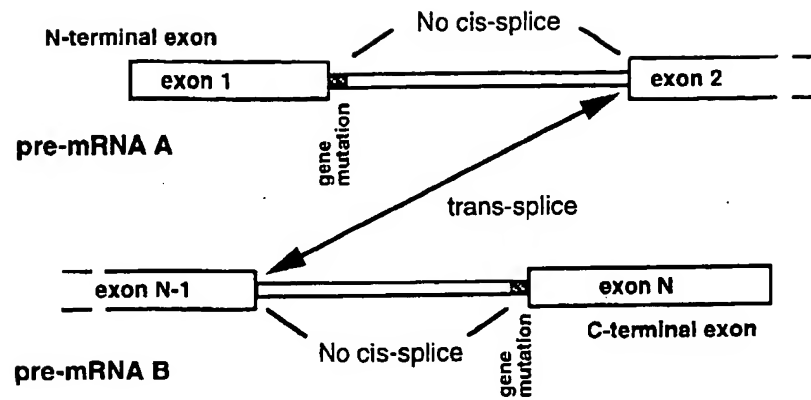
methodes to prefer the use of a 3' splice sit on a trans-splic RNA



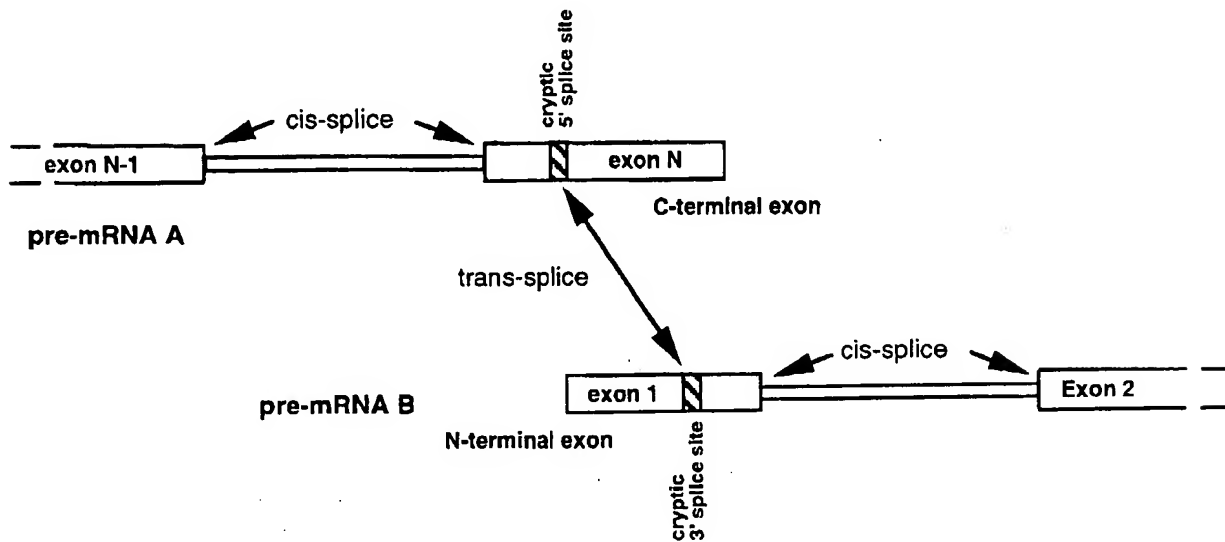
gen ratio n of deadly proteins in tumour c lls after trans splicing



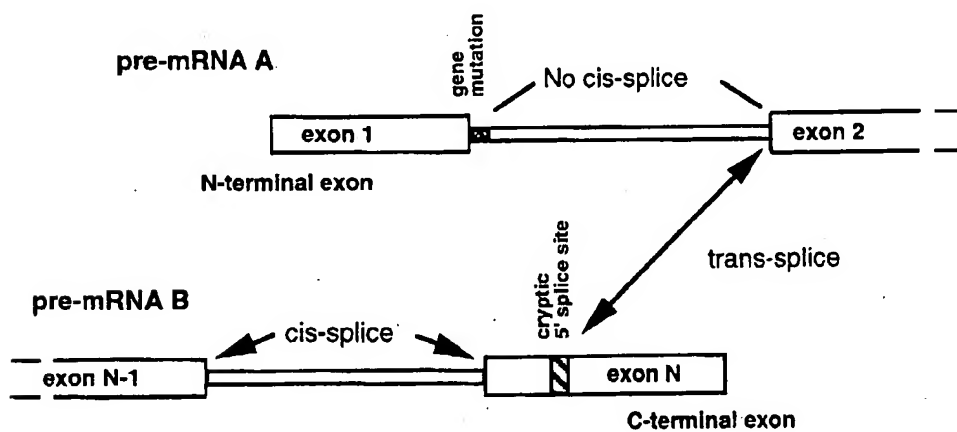
N



- (1) stimulation of trans-splicing by mutations in the cis splice sites in N- or C-terminal introns



- (2) stimulation of trans-splicing by activating cryptic splice sites in N- or C-terminal exons

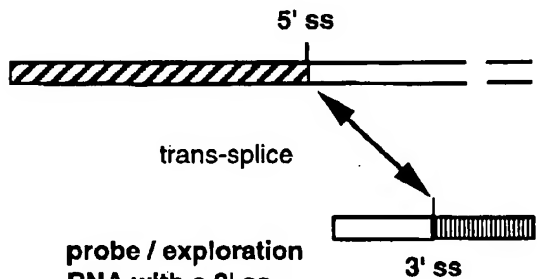


- (3) stimulation of trans-splicing by activating a cryptic splice site in N- or C-terminal exon and a mutation in a cis-splice site in a N-terminal intron

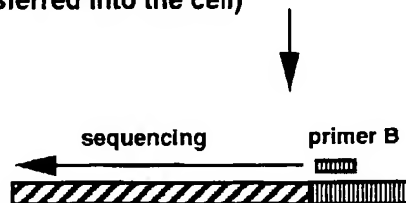
O

(1) step 1: identification potential pre-mRNAs for RNA trans-splicing

unknown cellular pre-mRNA A
with a 5' splice site (ss) that allows trans-splicing

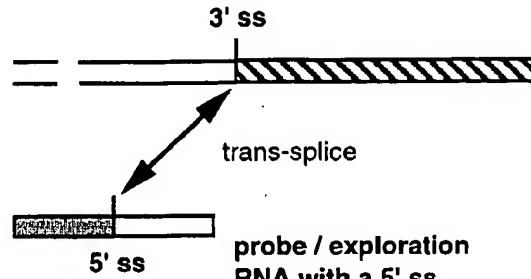


probe / exploration
RNA with a 3' ss
(transferred into the cell)

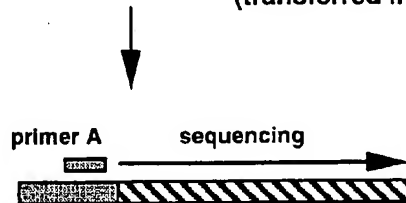


trans-splice product of probe / exploration RNA
and cellular pre-mRNA A
(PCR sequencing of the cDNA)

unknown cellular pre-mRNA B
with a 3' splice site (ss) that allows trans-splicing

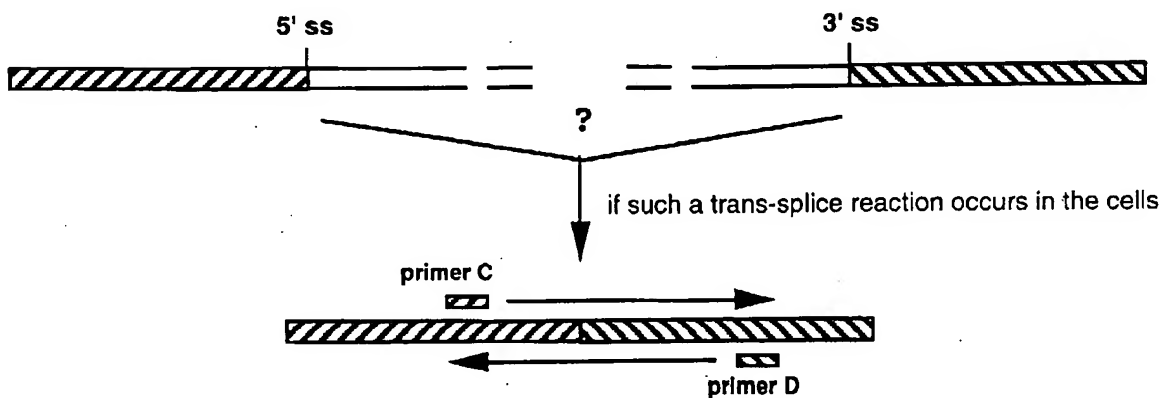


probe / exploration
RNA with a 5' ss
(transferred into the cell)



trans-splice product of probe / exploration RNA
and cellular pre-mRNA B
(PCR sequencing of the cDNA)

(2) step 2: identification of potential natural cellular trans-splice products

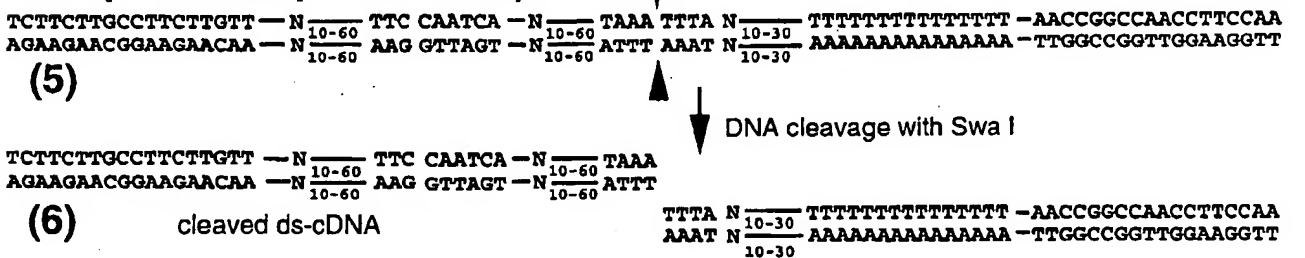
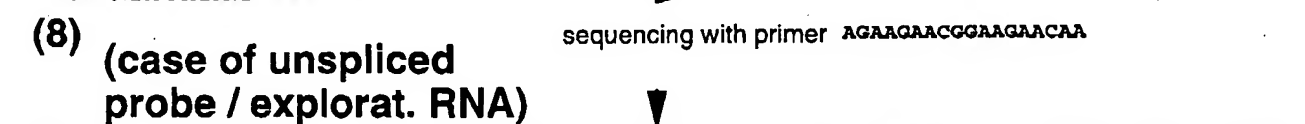
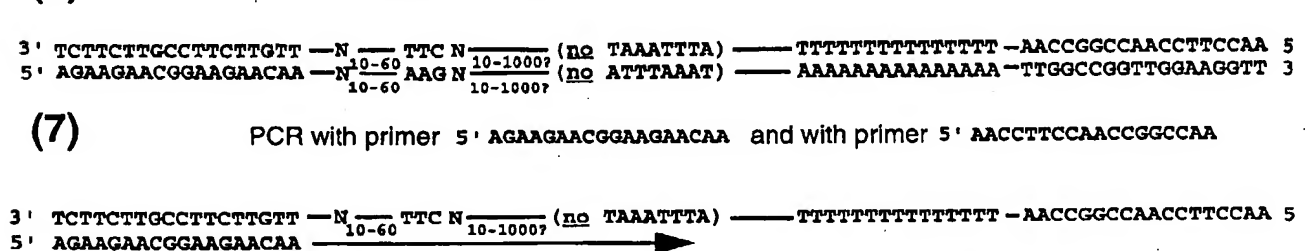
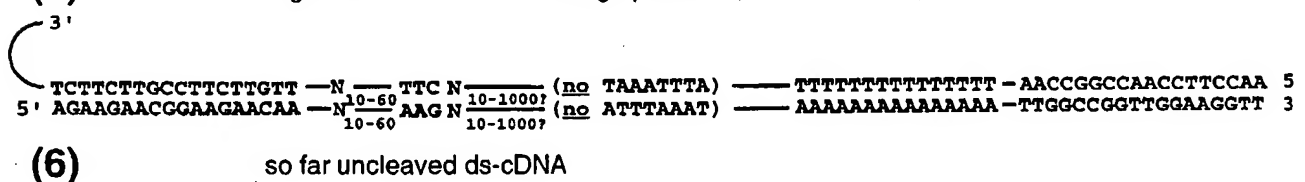
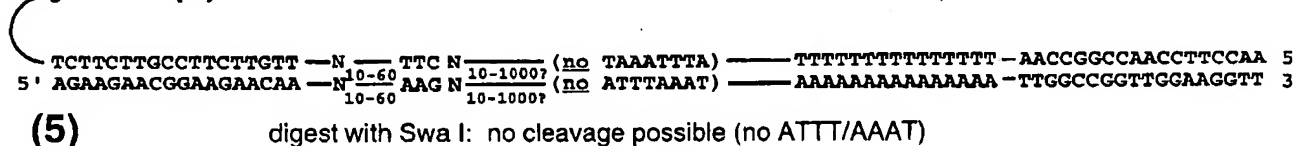
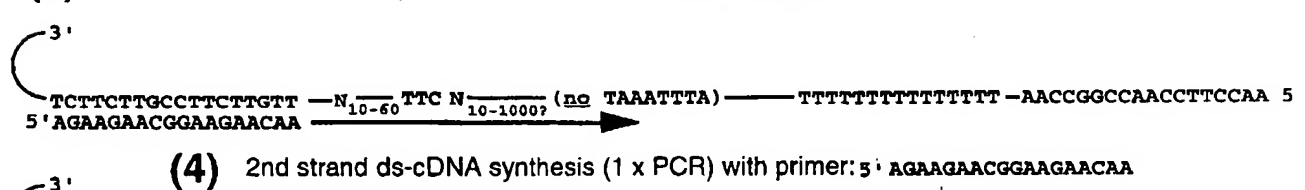
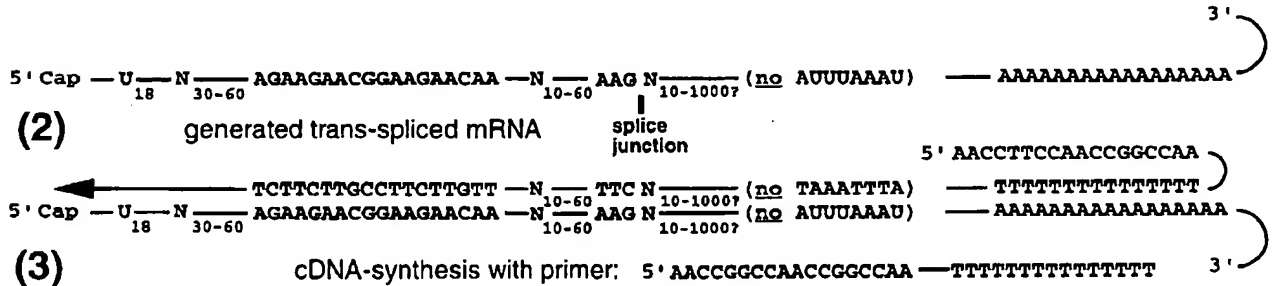
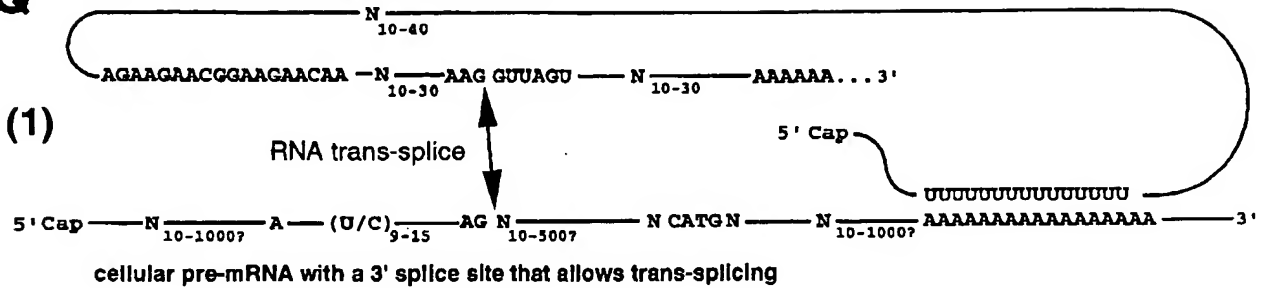


potential, natural generated trans-spliced (and also pathogenous) mRNA
(PCR sequencing of the cDNA)

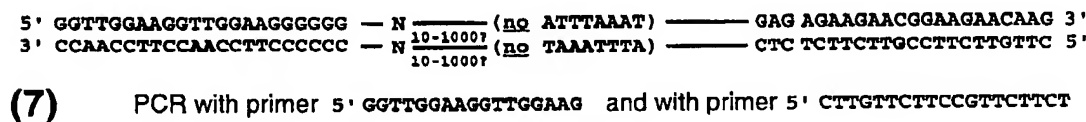
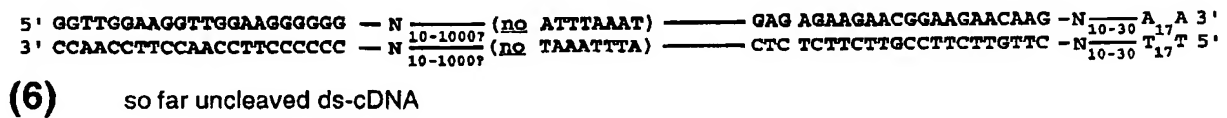
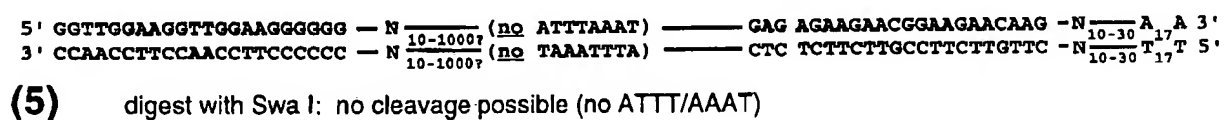
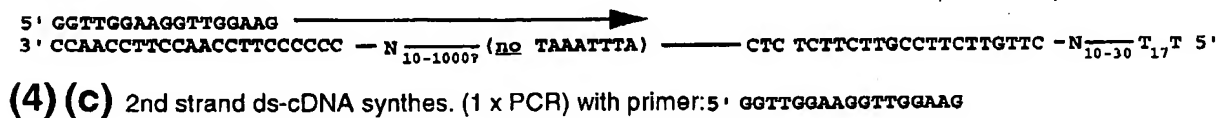
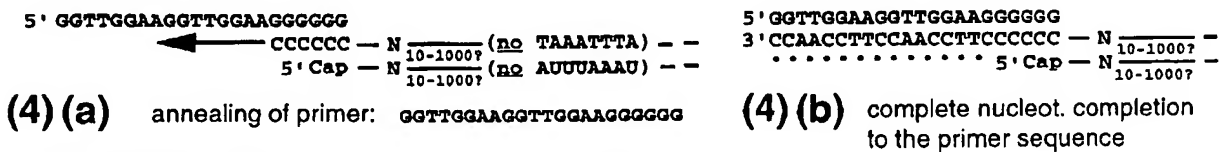
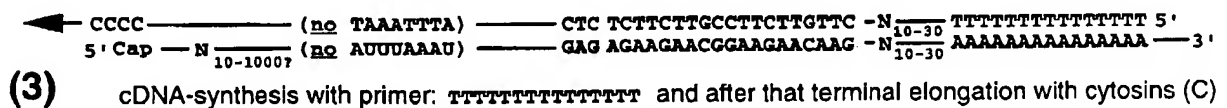
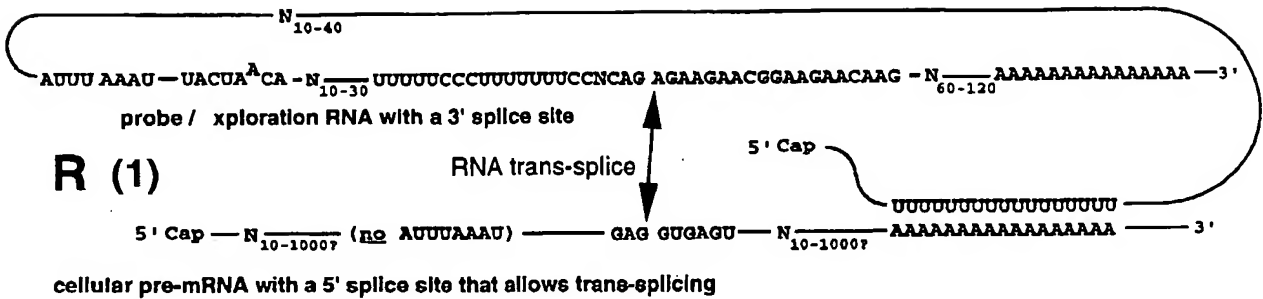
principle of identification of yet unknown cellular mRNA trans-splice products

Q

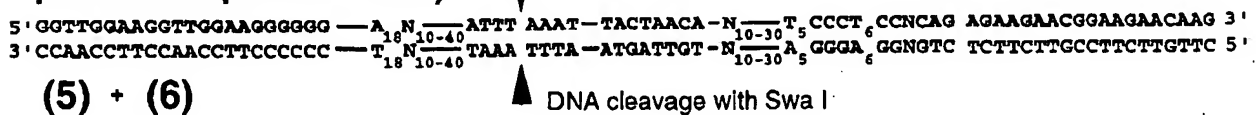
prob / xploration RNA with a 5' splice site



(7) PCR with primer AGAAGAACGGAAGAACAA and primer AACCTTCCAACCGGCCAA is impossible after DNA cleavage

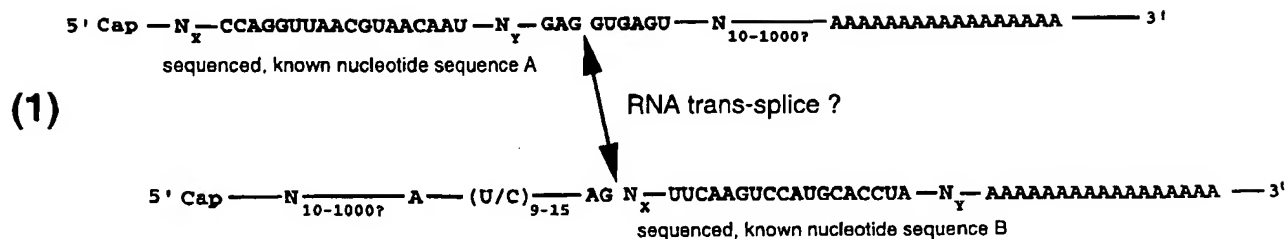


(case of unspliced probe / explorat. RNA)

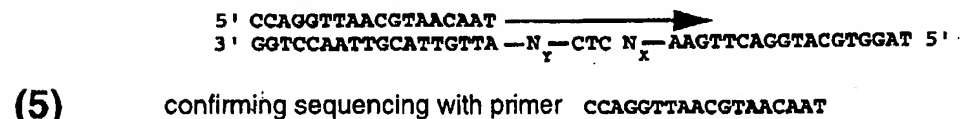
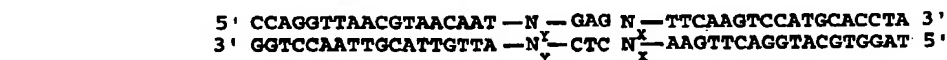
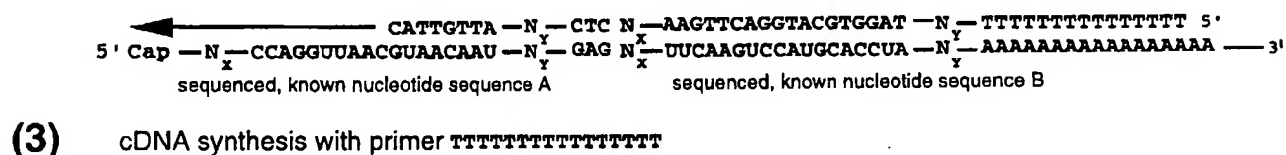
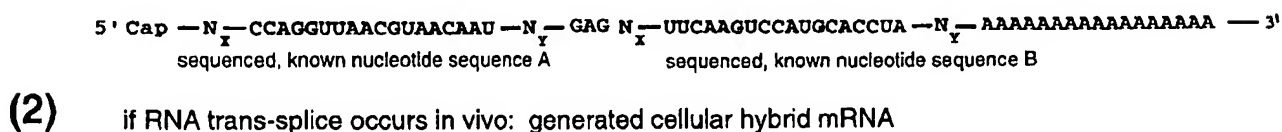


S

cellular pre-mRNA A with a 5' splice site that allows trans-splicing



cellular pre-mRNA A with a 3' splice site that allows trans-splicing



final evidence on natural cellular trans-splice products
generated by trans-splicing between two pre-mRNAs that both allow trans-splicing